

DIALOG(R)File 347:JAPIO

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MANUFACTURE OF SEMICONDUCTOR DEVICE

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INTL CLASS: [6] H01L-029/786; H01L-021/336; H01L-021/20; H01L-021/268;
H01L-021/322; H01L-021/324

JAPIO CLASS: 42.2 (ELECTRONICS -- Solid State Components)

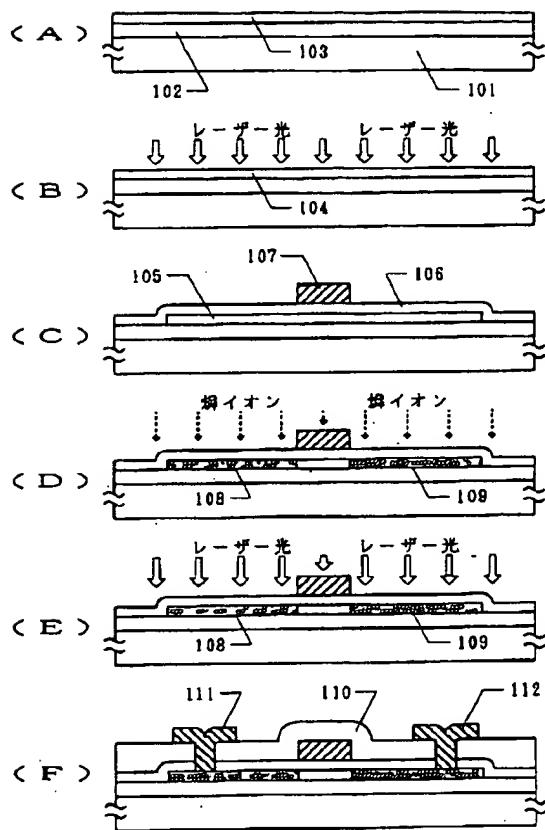
JAPIO KEYWORD: R002 (LASERS); R004 (PLASMA); R096 (ELECTRONIC MATERIALS --
Glass Conductors); R097 (ELECTRONIC MATERIALS -- Metal Oxide
Semiconductors, MOS); R100 (ELECTRONIC MATERIALS -- Ion
Implantation)

ABSTRACT

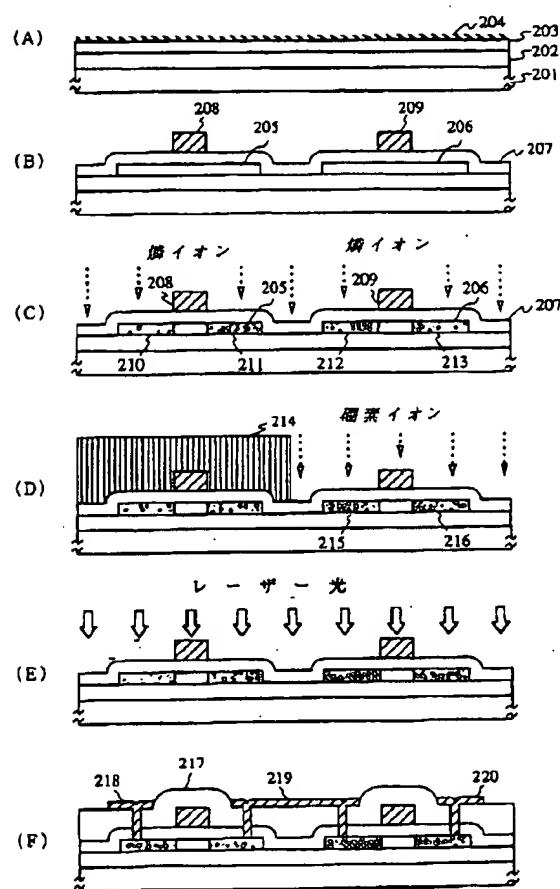
PURPOSE: To enhance the characteristics of a semiconductor device,
utilizing a metal element which accelerates crystallization of Si.

CONSTITUTION: A thin film transistor is constituted, using a crystalline Si
film obtained by utilizing a metal element, Ni, which accelerates the
crystallization of Si. A source region 108 and drain region 109 are
produced with Ni by implanting ions of an element, P, for gettering Ni and
annealing to getter Ni. For forming a P-channel type thin film transistor,
for example, both phosphorus and boron are used; phosphorus determining the
conductivity and boron being used for gettering.

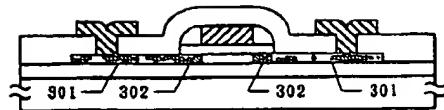
【図1】



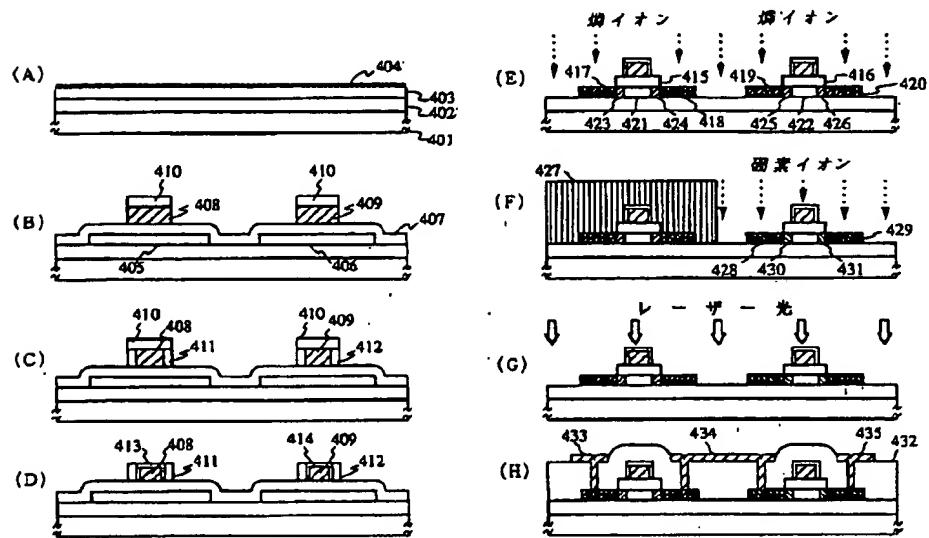
【図2】



【図3】



【図4】



フロントページの続き

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技術表示箇所

6 1 6 A

6 2 7 G